APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,524	03/29/2001	Yong Yan	5121-6	6084

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER
BONSHOCK, DENNIS G

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/821,524	YAN ET AL.
	Examiner	Art Unit	
	Dennis G. Bonshock	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>06 September 2005</u>.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-24</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-24</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Final Rejection

Response to Amendment

1.   It is hereby acknowledged that the following papers have been received and

placed on record in the file: Amendment as received on 9-06-2005.

2.   Claims 1-24 have been examined.

Status of Claims:

3.   Claims 1-7, 9, 11-13, 15, 17, 19, and 21-23 are rejected under 35 U.S.C. 103(a)

as being unpatentable over U.S. Patent No. 6,460,056 (Horii) and U.S. Patent No.

4,568,979 (Takagi).

4.   Claims 8, 14, and 20 are rejected under 35 U.S.C, 103(a) as being unpatentable

over U.S. Patent No. 6,460,056 (Horii) and U.S. Patent No. 4,568,979 (Takagi) as

applied to claims 6, 12, and 19 above, and further in view of U.S. Patent No. 6,665,643

(Lande et al).

5.   Claims 10, 16, 18, and 24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent No. 6,460,056 (Horii) and U.S. Patent No. 4,568,979

(Takagi) as applied to claims 1, 11, 17, and 22 above, and further in view of "Text-driven

automatic frame generation using MPEG-4 synthetic/natural hybrid coding for 2-D head-

and-shoulder scene".

Claim Objections

6.   Claim 1 is objected to because of the following informalities: the claims states in

line 5, "audio/vide signal", where it is assumed they meant "audio/video signal".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 1-7, 9, 11-13, 15, 17, 19, and 21-23 are rejected under 35 U.S.C. 103(a)

as being unpatentable over U.S. Patent No. 6,460,056 (Horii) and U.S. Patent No.

4,568,979 (Takagi).

9.   Referring to claims 1, 2, 11, 17, and 22, Horii discloses in Figure 4 a system

comprising speech input terminal (11), speech recognizer (13), speech dictionary (14),

storage device (15), image dictionary storage (6), video output signal processor (24),

image composer (23), and display (9). In column 4: line 40 through column 5: line 23,

Horii first explains that speech received at the input terminal (11) is recognized and

stored at storage device (15). A compressed image related to the recognized voice

signal is then retrieved from the image dictionary storage (6) and transmitted to the

image composer (23) through the video output signal processor (24). In column 3: lines

11-17, Horii further explains that said image dictionary storage device comprises sign

language images that may be obtained by adding motion to images produced by

computer graphics (i.e. animation). Accordingly, a sign language animation model is

inherently taught by Horii, because such would be required to relate the compressed

sign language images to the recognized voice signals. In column 4: lines 14-21, Horii

teaches that the recognized speech is first stored as character data. The inherent

linking structure between said character data and the sign language images thus

corresponds to the claimed animation model parameters. An animation signal is then

generated based on the parameters and used to render an animation image on a

portion of a display as illustrated in Figure 5. Horii teaches the flow of processing, in

column 1, lines 63 through column 2, line 12 and column 3, lines 6-16, which teaches

generating a character code string corresponding to recognized speed from the input

speech, where these character codes are used to find corresponding images and

further adding motion to these images according. Horii further teaches, in column 4,

line 50 through column 5, line 13, a series of sign language images with added motion

displayed in accordance with the associated corresponding image sequence, where this

animated sequence of sign language images (502) is combined with the original video

(501) to form a composite output signal (9) to provide a display on the monitor (see

figure 5). Horii fails to disclose processing an audio/video signal to generate an isolated

audio component signal. From Figure 4 though, it is clear that Horii's invention requires

an isolated audio component signal at input terminal (11). Horii further discloses in

column 4: line 66 through column 5: line 7 that the invention could be operated using a

television signal. A television broadcast signal, furthermore, includes both audio and

video components. In any instance where a television broadcast signal is used, it would

thus be necessary to separate the audio component so that it could properly be

provided to input terminal (11). Takagi teaches in column 2: lines 23-26 that an audio

component can be separated from a video component in a television broadcast signal

via a band pass filter. Accordingly, it would have been obvious to one of ordinary skill in

the art at the time the invention was made to improve Horii's invention by adding

technology capable of processing an audio/video signal (e.g. a broadcast television

signal) to generate an isolated audio component signal as taught by Takagi. It would

have been advantageous to do so because the audio component is often combined with

the video component, such as when the signal is a television broadcast signal.

10.   Regarding claims 2 and 11, Horii's invention must inherently isolate the speech

component from the isolated audio component so that spoken words can be recognized

and correlated with the associated sign language images. Regarding claims 17 and 22,

Horii's invention must inherently comprise transmitters and receivers for transmitting

and receiving the audio/video signals.

11.   Referring to claims 3-5, Horii discloses in column 5: lines 14-23 that the

audio/video signal could come from a television program, which is generally produced

and transmitted from a location that is remote from the monitor. Horii, though, fails to

disclose that the mapping step is performed remotely from the monitor, that the

mapping step is performed proximate the transmitter, or a step of transmitting the

animation model parameters to the monitor. The actual display, however, is typically

only used to display an associated video signal. The physical location of Horii's display

is then by no means instrumental to the operation of the invention. The transmitting and

mapping steps can be performed anywhere as long as the video signal can be routed

back to the display for viewing. Furthermore, the examiner submits that it is notoriously

well known in the state of the art that displays can be located remotely from where video

signals and parameters are generated and transmitted. The examiner takes OFFICIAL

NOTICE of this teaching. Accordingly, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to perform the mapping step remotely

from the monitor/display and proximate the transmitter. Such an implementation would

allow greater flexibility in deploying the invention in a variety of locations and

environments. In this implementation, the animation model parameters would be

transmitted to the monitor.

12.   Referring to claims 6, 12, and 19, Horii discloses in column 3: lines 7-17 that the

image dictionary storage device (6) comprises a plurality of images related to character

codes. Horii further explains in this section that the images can be obtained by adding

motion to (animating) computer graphics. Accordingly, said images correspond to the

claimed multiple character icons.

13.   Referring to claims 7 and 13, Horii discloses in column 2: lines 57-61 that a

keyboard (monitor control device) can be used to activate the processor.

14.   Referring to claim 9, 15, 2 1, and 23, Horii discloses in column 3: lines 7-17 that

the image dictionary storage device (6) comprises a plurality of sir language images

corresponding to related character codes. Horii further explains in column 42 lines 1-39

that spoken words from the speech component of the audio/video signal are correlated

to the sign language symbols.

15.   Claims 8, 14, and 20 are rejected under 35 U.S.C, 103(a) as being unpatentable

over U.S. Patent No. 6,460,056 (Horii) and U.S. Patent No. 4,568,979 (Takagi) as

applied to claims 6, 12, and 19 above, and further in view of U.S. Patent No. 6,665,643

(Lande et al).

16.   Referring to claims 8, 14, and 20, Horii and Takagi fail to disclose displaying a

character icon comprising a face with a mouth and animating the mouth to simulate

speech corresponding to the speech component of the audio/video signal. Lande,

though, discloses in column 2: lines 31-67 a mechanism for animating a synthesized

model of a human face, wherein the animation is driven by an audio signal. Ultimately,

the synthesized model comprises a face with a mouth that is animated to correspond

with the speech component of the audio signal. Accordingly, it would have been obvious

to one of ordinary skill in the art at the time the invention was made to include an

animated model of a face with a mouth as taught by Lande in the invention of Horii and

Takagi. In instances wherein the primary video component fails to include images of the

person from whom the speech is coming from, the animated model advantageously

provides hearing disabled viewers with the option to lip read instead of interpreting hand

gestures.

17.   Claims 10, 16, 18, and 24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent No. 6,460,056 (Horii) and U.S. Patent No. 4,568,979

(Takagi) as applied to claims 1, 11, 17, and 22 above, and further in view of "Text-driven

automatic frame generation using MPEG-4 synthetic/natural hybrid coding for 2-D head-

and-shoulder scene".

18.   Referring to claims 10, 16, 18, and 24, Horii and Takagi fail to disclose

generating animation model parameters via Synthetic Natural Hybrid Coding ISNHCI.

The "Text- driven . . ." reference, however, teaches that it is well known to use SNHC to

generate animation parameters because it increases the intelligibility of non-verbal

communication. Accordingly, it would have been obvious to one of ordinary skill in the

art at the time the invention was made to use SNHC as taught by the "Text drive. . ."

reference to generate the animation model parameters in combination with the

teachings of Horii and Takagi. As suggested in the "Text drive. . ." reference, SNHC

advantageously increases the intelligibility of non-verbal communication.

Response to Arguments

19.   The arguments filed on 9-06-2005 have been fully considered but they are not

persuasive. Reasons set forth below.

20.   The applicants' argue that Horii fails to disclose "generating animation

parameters from a mapping of the speech components to a sign language model and

generating a signal from the parameters where the parameters impart movement to the

model, as is recited in the claims".

21.   In response, the examiner respectfully submits that Horii teaches, in column 1,

lines 63 through column 2, line 5, generating a character code string corresponding to

recognized speed from the input speech. Horii further teaches, in column 2, lines 5-12

and column 3, lines 6-16, using those character codes to find corresponding images

and adding motion to these images according. Horii further teaches, in column 4, line

50 through column 5, line 13, a series of sign language images with added motion

displayed in accordance with the associated corresponding image sequence, where this

animated sequence of sign language images (502) is combined with the original video

(501) to form a composite output signal (9) to provide a display on the monitor (see

figure 5).

Conclusion

22.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

23.   A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

24.	Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis G. Bonshock whose telephone number is (571) 272-4047. The examiner can normally be reached on Monday - Friday, 6:30 a.m. - 4:00 p.m.

25.	If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

26.	Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11-11-05
dgb

RAYMOND J. BAYERL
PRIMARY EXAMINER
ART UNIT 2173